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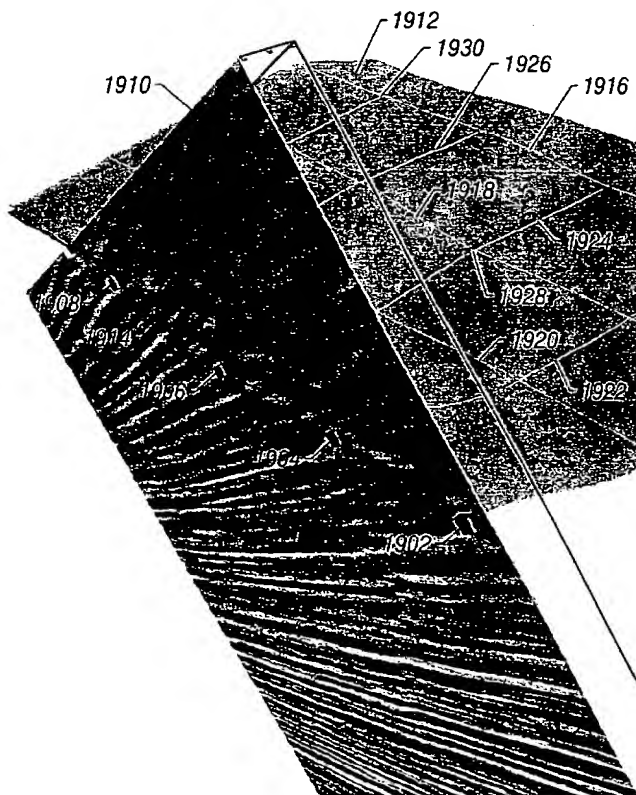
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(54) Title: SYSTEM AND METHOD FOR ANALYZING AND IMAGING THREE-DIMENSIONAL VOLUME DATA SETS

(57) Abstract: A system and method is provided  
for quickly tracking a physical phenomena  
represented within the three-dimensional volume  
data set. A plurality of planes may be successively  
displayed in the three-dimensional volume data  
set from which points are digitized related to the  
structure of interest to create a spline curve on  
each plane. The area between the spline curves  
(1914, 1916, 1918, 1920) is interpolated to produce  
a surface (1912) representative of the structure of  
interest, which may for example be a fault plane  
described by the three-dimensional volume data  
set. In this manner, the user can more easily and  
effectively visualize and interpret the features  
and physical parameters that are inherent in the  
three-dimensional volume data set.

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